NEW TAXA OF TRADESCANTIA FROM NORTHCENTRAL MEXICO

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Routine efforts to identify collections of the family Commelinaceae from the Chihuahuan Desert regions of northcentral Mexico have revealed two previously undescribed taxa, Tradescantia gypsophila and T. wrightii var. glandulopubescens, as noted below.

Tradescantia gypsophila B. L. Turner, sp. nov.

T. wrightii accendens sed habitu robustiore, foliis amplioribus, floribus multioribus, praeter ovarium perfecte glabris.

Perennial herbs 10-30 cm tall, glabrous throughout (except for the ovary). Roots fleshy, 2-4 mm thick, conspicuously pubescent, arising from short, stout, rhizomes. Leaves sedge-like, up to 15 cm long, mostly erect, reportedly "grey-green" when fresh; the lower most much-reduced, persistent as an aggregation of brown, scarious, tufted, sheaths; nodes and sheaths scarcely, if at all, inflated, the mid-stem blades linear-lanceolate, strongly plicate, 6-10 mm wide. Spathes leaf-like, 2-10 cm long. Inflorescences predominantly terminal on peduncles 2-10 cm long. Flowers reportedly "maroon to rose-red" or "purple-violet", (6)30-40 per primary inflorescence. Pedicels glabrous, up to 30 mm long, reflexed and twisting with age. Sepals narrowly triangular, 6-8 mm long, 2.5-3.0 mm wide, glabrous, translucent or scarious, with a faint mid-rib. Petals 7-10 mm long, ca. 5 mm broad, widest at the middle. Stamens ca. 6 mm long; anthers ca. 1.5 mm wide, the connective yellow, ca. 0.8 mm wide; filaments ca. 4 mm long, pubescent with white, multiseptate, hairs ca. 1 mm long. Ovary ca. 1.1 mm long, very sparsely pubescent with scattered, short, glandular trichomes; carpels 3, each with 2 ovules; style ca. 3.1 mm long, the stigma capitate. Seeds oval, grey, ca. 3 mm long, the funicular scar ca. 1/2 the length of the seed.

TYPE: MEXICO. Coahuila: ca. 32 (air) mi NE of San Pedro, 1 mi SW of Las Delicias at spring on limestone cliffs ($26^{o}14$ N x $102^{o}49$ W), 3560 ft, 27 Aug 1971, J. Henrickson 6040. (holotype TEX; isotypes MEXU).

Additional specimens examined: MEXICO. Chihuahua: 9 km N of Cerros Blancos on winding road to Rancho La Gloria ($27^{o}08^{o}$N x $104^{o}05$ 30 W), 1325 m, 31 Aug 1972, Johnston et al. 9039 (LL).

Coahuila: 12 km NNE of Las Margaritas on the eastern ridge of Sierra de las Margaritas (26°33 30 N x 102°51 30), 1300-1400 m, 24 Sep 1972, Chiang et al. 9508C (LL); ca. 35 (air) mi SSW of Cuatro Cienegas, N slope of limestone Sierra de Los Alamitos, ca. 9.2 (rd.) mi S of El Hundido (26°30 N x 102°17 W), 29 Sep 1973 Henrickson 13680 (TEX); S part of Sierra de los Organos, ca. 9 1/2 km E of Puerto del Gallo (ca. 26°43 30 x 103°01 W), 1200-2100 m, 8 Aug 1973, Johnston et al. 12125A (LL).

The specimens cited above are clearly related to Tradescantia wrightii, a species of trans-Pecos Texas, southeastern New Mexico and adjacent Mexico (cf. below) but differ in a number of traits, including edaphic preference, which I suspect is predominantly gypseous ($CaSO_4$), for the plant has been collected in a region where gypseous outcrops abound. Indeed, the holotype was collected at a locality which I have visited and know to be predominantly gypseous and which houses a number of rare gypsophilic species including the genus Marshalljohnstonia (Henrickson, 1976) and yet other pecuilar endemics (e.g. Nerisyrenia johnstonii Bacon). In addition, label data of two of the other specimens refer to gypsum outcrops or substrates (Chiang et al. 9408C and Johnston et al. 12125A) as part of the locale and roots of one of these show adhering gypsum soil particles.

During a visit to Austin sometimes in the mid 1970's D. Hunt of Kew, avid scholar of the Commelinaceae, noted by annotation on Chiang et al. 9508C that the plant presumably belonged to the Series Virginianae of the Section Tradescantia. However, I relate the species to T. wrightii which Hunt (1981) assigned "tentatively" to the Series Tuberosae which includes T. pinetorum Greene, a tuberous species of southern Arizona and adjacent Mexico which superficially resembles T wrightii. Nevertheless, I would relate both T. wrightii and T. gypsophila to the series Virginianae; neither of the later have tuberous roots and both produce short, but well defined rhizomes, strikingly different from the root system of T. pinetorum.

Tradescantia wrightii var glandulopubescens B. L. Turner - var nov.

A varietate typica pedicellis sepalisque conspicue glanduloso-pubescentibus et distributione magis meridionali differt.

TYPE. MEXICO. Coahuila: Sierra del Carmen, "sheltered hollow along rim of spectacular scarp that drops off to Boquillas country to the W, ca. 1 1/2 mi S of Pico de Cerda, (29°11 30 N x 102°48 W), 2050 m, 11 Aug 1974, T. Wendt 556A (holotype LL).

Fig. 1. Distribution of Tradescantia taxa.

Additional specimens examined: MEXICO. Chihuahua: 4 km. SSW of Cerro del Gringo in the Sierra del Diablo (ca. 27°09 x 104°08), 30 Aug 1972, Chiang et al. 9022a (LL). Coahuila: 18.2 (rd.) mi W of Villa Ocampo towards Laguna del Rey, 4300 ft, 23 Sep 1974, J. Henrickson 14241 (TEX). Santa Rosa Mts (ca. 28°N x 102°W), 25 Jul 1938, E. M. Marsh 1479 (TEX).

U.S.A. Texas: Brewster Co.: Top of Dead Horse Mountains at head of Heath Canyon, 3800 ft, 19 Jul 1952, Warnock 10775 (LL).

The distributional relationships of the two allopatric varieties of Tradescantia wrightii are shown in Fig 1, along with that of T. gypsophila. It will be noted that the latter occurs in the vicinity of var. glandulopubescens but there is no indication of intergradations between the two, T. gypsophila being consistently broad-leaved and glabrous throughout. The var. glandulopubsecens probably does intergrate with var. wrightii in regions of near sympatry, at least to judge from the variability of pubescence in the two varieties, but no clear intermediates were found in the present study.

Literature Cited

Henrickson, J. 1976. Marshalljohnstonia, a new genus (Asteraceae) with a rosette-shrub growth habit from Mexico. System. Bot. 1: 169-180.

Hunt, D. R. 1981. Sections and series in Tradescantia. Kew Bull. 35: 437-442.